

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	09/966264	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/22 11:53
L2	3	Barber Elizabeth	US-PGPUB; USPAT; EPO; JPO; DERWENT	NEAR	ON	2007/03/22 11:53
L3	351	human WITH dystrophin WITH gene	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/22 11:54
L5	5	(human WITH dystrophin WITH gene) SAME (inversion invert\$4 translocat\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/22 11:55
L6	4	(human WITH dystrophin WITH gene) and CD33	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/22 11:56
L7	1	apo-dystrophin-4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/22 11:56
L8	10	(human WITH dystrophin WITH gene) SAME (regulatory WITH element)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/22 11:56
L9	10	(human WITH dystrophin WITH gene).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/22 11:56
L11	2	(US-20020099015-\$).did. or (GB-2368064-\$). did.	US-PGPUB; EPO	OR	ON	2007/03/22 11:57

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(FILE 'HOME' ENTERED AT 12:03:29 ON 22 MAR 2007)

FILE 'MEDLINE, SCISEARCH, CAPLUS, BIOSIS' ENTERED AT 12:03:39 ON 22 MAR 2007

L1 2897 S HUMAN(S)DYSTROPHIN OR APO(2W)DYSTROPHIN?  
L2 49 S L1 (L) (INVER? OR TRANSLOCAT?)  
L3 24 DUP REM L2 (25 DUPLICATES REMOVED)  
L4 14 S L3 AND PY<=2000  
E BARBER ELIZABETH?/AU  
L5 3 S E1  
L6 6 S E2  
L7 9 S L5 OR L6  
L8 7 DUP REM L7 (2 DUPLICATES REMOVED)  
L9 1 S L8 AND L1

=> d ti so au ab pi l9

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

TI **Human apo-dystrophin-4 gene, its 3' UTR**  
inversion element, associated proteins and peptides, and therapeutic use thereof

SO Brit. UK Pat. Appl., 222 pp.  
CODEN: BAXXDU

IN **Barber, Elizabeth**

AB The invention provides full-length cDNA sequences for a **human** putative low-affinity ligand for CD33 termed **apo-dystrophin-4** (also called apo-4, with 70% homol. to **dystrophin** gene) isolated through the panning process using Fc-CD33 as ligand probe to screen placenta cDNA library. The **apo-dystrophin-4** cDNA contains three AUG codons (+25, +88, +100), 23 stop codons, several splice sites, cap sites, CAAT boxes, polyA sites, polyT region, inverted repeats, and direct repeats. A 137-bp region 1.62kb (size of the major apo-4 transcript) downstream in the 3' UTR in the reverse orientation of **apo-dystrophin-4** gene, homologous to dystrophin gene, is identified as an important regulatory element. The inversion at gene **apo-dystrophin-4** 3' end appears necessary for the production of its two major protein products, 50Kd and 40Kd. The predicted protein sequences with all the stop codons suppressed are provided. Furthermore, three peptides are selected from **apo-dystrophin-4** protein named as P1 (MYPIMEYSCSDRN), P2 (YIYIGNLNVADTM) and P3 (DDLGRAMESLVSVMTEDEE) are used to prepare antisera to characterize **apo-dystrophin-4** gene products. In vitro transcription and translation demonstrates that the full-length **apo-dystrophin** transcript produces proteins of 40 Kd and 50Kd under reducing conditions. The proposed potential **apo-dystrophin-4** activation mechanism includes inserting an inverted sequence containing the basic hallmarks of a retrovirus or transposable element into a specific target site in the dystrophin gene prior to splicing and most likely during gene rearrangement, and reading through stop codons. The invention is of use in gene therapy, especially for diseases involving gene truncation, such leukemia.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2368064	A	20020424	GB 2001-1124	20010116
GB 2368064	B	20021113		
US 2002099015	A1	20020725	US 2001-966264	20010928

PI